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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/151,764 09/11/98 DOWLING

J A-6388

EXAMINER

MMC1/1108

FUREMAN, J

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ART UNIT

PAPER NUMBER

2876

DATE MAILED:

11/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/151,764

Applicant(s)
Dowling et al.

Examiner
Jared Fureman

Group Art Unit
2876



☒ Responsive to communication(s) filed on Oct 25, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-41 is/are pending in the application.

Of the above, claim(s) 1-24 and 28-41 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 25-27 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

1. Receipt is acknowledged of the response to restriction requirement (originally filed on 3/29/2000 and refiled on 10/25/2000), electing group III, figures 5a-5c, having claims 25-27 readable thereon (see interview summary, paper number 9).

Specification

2. The disclosure is objected to because of the following informalities:

Page 1, lines 5 and 6: a patent application serial number is missing.

Page 3, line 1: "CCD" should be replaced with --charge coupled device (CCD)--.

Page 11:

Line 24, a patent application serial number is missing.

Line 25, a data is missing.

Appropriate correction is required.

Claim Objections

3. Claim 25 is objected to because of the following informalities:

Claim 25:

Line 2, "CCD" should be replaced with --charge coupled device (CCD)--, in order to clarify the claim.

Line 12, "said image data" lacks proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (US 5,365,049).

Peng teaches an optical symbology imager, comprising: a CCD (18) having an active area, a focusing apparatus comprising a focusing disk (wheel 4) with multiple optical positions (reflective surfaces 7) to provide different focal lengths, the disk being rotatable so that each of the multiple optical positions can move into an optical path of the imager, a microprocessor (not shown) for controlling the focusing apparatus and operation of the CCD, so that the CCD performs image capture for each of the multiple optical positions, the microprocessor controlling the CCD to shift out the image data, the microprocessor evaluating transitions between light and dark data in a central set of scan lines (Peng evaluates all of the scan lines of the CCD, thereby including the central set of scan lines) to produce a representative value for

each of the multiple optical positions (see figure 6, column 1 lines 6-46, column 2 lines 3-26, column 2 line 61 - column 3 line 12, column 4 lines 4-16, and column 7 line 47 - column 8 line 13).

Peng fails to specifically teach the CCD having a resolution of 659 by 494, shifting out the image data substantially serially, and the largest representative value corresponding to one of the optical positions producing optimum focus.

However, CCD's having a resolution of 659 by 494 were well known to those of ordinary skill in the art at the time of the invention (as applicant's acknowledge on page 3, lines 1-11, and page 11, lines 28-32 of the specification), furthermore, it was well known to those of ordinary skill in the art at the time of the invention to shift out image data from a CCD substantially serially, and that when an image is in a focused position it will provide the highest contrast between different portions of the image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Peng, the CCD having a resolution of 659 by 494, and shifting out the image data substantially serially, in order to provide a CCD with suitable size for reading the intended images, and the largest representative value corresponding to one of the optical positions producing optimum focus, in order to provide a means/method for quickly and easily determining the best focus position.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng as applied to claim 25 above, and further in view of Joseph et al (US 5,710,417).

Peng fails to teach the CCD disposing of a first set of multiple scan lines and then sampling a second set of scan lines from the central set of scan lines.

Joseph et al teaches disposing of a first set of multiple scan lines of a CCD and then sampling a second set of scan lines from the central set (the center section of the imager) of scan lines, in order to increase the scan rate (see column 6 line 37 - column 7 line 27).

In view of Joseph et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Peng, the CCD disposing of a first set of multiple scan lines and then sampling a second set of scan lines from the central set of scan lines, in order to increase the scan rate, thereby providing a faster system.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng as applied to claim 25 above, and further in view of England (US 5,510,604).

Peng fails to teach the representative value being produced by totaling a first seven to ten values from multiple values produced for each of the multiple focusing zones.

England teaches producing a representative value (of a bar code) by totaling (each scan may be averaged from several sub-scans, producing an average includes totaling the values) a plurality (thus, suggesting at least 7-10) of values from multiple values produced by an imager, in order to ensure valid results (see the abstract, and column 5 line 35 - column 6 line 3).

In view of England's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Peng, the

representative value being produced by totaling a first seven to ten values from multiple values produced for each of the multiple focusing zones, in order to ensure valid results.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gorin et al (US 4,333,006), Ferrante (US 4,794,237), Broockman et al (US 4,800,256), Rando et al (US 4,939,356), Schaham (US 5,192,856), and Pidhirny et al (US 6,045,047) all teach imaging systems including a focusing wheel or disk having multiple optical positions.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jared Fureman** whose telephone number is (703) 305-0424. The examiner can normally be reached between the hours of 7:00AM to 4:30PM Monday thru Thursday and every other Friday (second Friday of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael G. Lee, can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [jared.fureman@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly

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Art Unit: 2876


Representative: Mr. Mitchell B. Wasson (27,408)

signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

jjf
jjf

November 4, 2000


Michael G Lee
Primary Examiner